

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF WATER QUALITY PROGRAMS  
ELLEN GILINSKY, Ph.D., DIRECTOR**

**P.O.BOX 10009**

**Richmond, VA 23240-0009**

**Subject:** *Guidance Memo 05-2011*

*TMDL Modifications in Response to New or Expanding Discharges*

**To:** *Regional Directors, Deputy Regional Directors*

**From:** Ellen Gilinsky, Ph.D., Director



**Date:** *July 26, 2005*

**Copies:** *TMDL staff, Water Permit staff, Alan Pollock, Cindy Berndt, Jack Frye (VADCR),  
Joey O'Quinn (VA DMME)*

**Summary:**

*Permits issued for facilities with wasteload allocations developed as part of a Total Maximum Daily Load (TMDL) must be consistent with these wasteload allocations (WLA), as per EPA regulations. In cases where a proposed permit modification is affected by a TMDL WLA, permit and TMDL staff must coordinate to ensure that new or expanding discharges meet this requirement. This guidance describes the available options and the process that should be followed under those circumstances, including public participation, EPA approval, State Water Control Board actions, and coordination between permit and TMDL staff.*

**Electronic Copy:**

An electronic copy of this guidance in PDF format is available for staff internally on DEQNET, and for the general public on DEQ's website at: <http://www.deq.virginia.gov>.

**Contact information:**

*For additional information regarding TMDLs, please contact Mr. Charles Martin, Watershed Program Manager, at (804) 698-4462 or at [chmartin@deq.virginia.gov](mailto:chmartin@deq.virginia.gov).*

*For additional information regarding water permits, please contact Mr. Allan Brockenbrough at (804) 698-4147 or at [abrockenbrough@deq.virginia.gov](mailto:abrockenbrough@deq.virginia.gov).*

**Disclaimer:**

**This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.**

## **TMDL Modifications in Response to New or Expanding Discharges**

### **I. Background**

Since 1999, Virginia has been developing Total Maximum Daily Loads (TMDLs) for a number of pollutants. EPA regulations (40 CFR §130.2(h), 40 CFR §130.2(i)) require that an approvable TMDL include individual wasteload allocations (WLAs) for each point source, or in some cases, categories of point sources. EPA also requires the wasteload allocation to be expressed in terms of loading (e.g., mass/year for sediment, cfu/year for bacteria). Therefore, any increase in flow due to expansion at a permitted facility will result in a discharged load exceeding the TMDL's wasteload allocation.

New or revised VPDES permits must be consistent with TMDL WLAs, as per federal regulations (40 CFR §122.44 (d)(1)(vii)(B)), and EPA approval is needed for any changes to the WLA and TMDL, regardless of the rationale for such a change. The Virginia State Water Control Board (SWCB) approves all TMDLs and adopts wasteload allocations as part of the Water Quality Management Planning Regulation (9VAC 25-720), except in those cases when permit limitations are equivalent to numeric criteria contained in the Virginia Water Quality Standards, such as for bacteria.

In cases where a proposed permit modification is affected by a TMDL WLA, permit and TMDL staff must coordinate to ensure that new or expanding discharges are consistent with the TMDL WLA. This guidance describes the available options and the process that should be followed under those circumstances, including public participation, EPA approval, State Water Control Board actions, and coordination between permit and TMDL staff.

### **II. Procedure**

There are three options available to process a permit modification that is affected by a TMDL WLA. In all cases, the permit staff and the TMDL staff must coordinate activities to ensure that no permit is issued in violation of the TMDL.

1. Process a permit modification that maintains the existing TMDL WLA loading. In this case, no TMDL modification is required and the permit processing continues.
  - a. TMDLs are sometimes based on expansion scenarios that account for growth of facilities.
  - b. The permit modification can be processed while maintaining the existing TMDL WLA, e.g., by reducing concentrations limits in the permit to account for increasing flow.

2. Process a permit modification that provides an insignificant increase to the TMDL. This is usually accepted to be an increase of less than 1% of the annual allowable loading, but other demonstrations of no significant impact may be possible (e.g., additional allocation scenarios developed as part of TMDL development, but not selected as the basis for the final TMDL). The basis for the procedure outlined under this option is a letter sent by EPA Region III to DEQ in August 2003 (see Appendix A). As stated in the letter, to ensure that a new or re-issued permit is written in accordance with an approved TMDL, the TMDL must be modified and approved by EPA before the permit is issued. The TMDL and the permit modification must be public noticed. The steps in this process are:
  - a. Verify that the percentage increase in the WLA needed to accommodate this permit modification is less than 1% of the WLA. RO permit and TMDL staff must agree on this decision.
  - b. Prepare a letter requesting EPA modification of the TMDL WLA for CO TMDL Modeling Coordinator signature and transmit for processing. An example is provided as Appendix B.
  - c. Submit the permit modification package to EPA as required by the permit manual for modification of a permit affected by a TMDL. The permit package must include the permit fact sheet that describes the WLA and TMDL changes needed to accommodate the increasing discharge. The fact sheet should also state DEQ's rationale for supporting the change (e.g., no impact to water quality since the increase is < 1% of the total load, or other demonstration of no significant impact).
  - d. Public notice both the TMDL and the permit modification, after EPA has given preliminary approval for both the permit modification and the TMDL WLA modification, 2.b. and 2.c. Example language for inclusion in the public notice is provided in Appendix C. The cost is paid by the permittee as per permit manual procedures.
  - e. Obtain final approval for the TMDL modification from EPA TMDL staff upon completion of the comment period.
  - f. Public notice the amendment of the Water Quality Management Planning Regulation in the Virginia Register. Obtain State Water Control Board approval for TMDL modification and, if needed, regulatory amendment. This is usually done by Watershed Program staff.
  - g. Issue the final permit, deferring issuance until after regulatory amendment has been approved by State Water Control Board as per 2.f.

3. Process a permit modification that requires remodeling of the TMDL, potentially resulting in additional nonpoint source reductions or trading. The processing of these requests is similar to the process in item 2 above, with the additions shown below. The permit documentation and the letters referenced in item 2 must be modified accordingly.
  - a. If additional loading must be accommodated, permit staff will request a TMDL remodeling effort to evaluate the impact of the additional loading on in-stream water quality. Any costs incurred by the TMDL remodeling effort will be paid for by the permittee.
  - b. If the modeling shows that the extent of the proposed TMDL modification does not require a change in the nonpoint source load allocations, follow the procedures outlined under item 2 b through g.
  - c. If the modeling shows that the extent of the proposed TMDL modification requires a change in the nonpoint source load allocations, a public comment period will be scheduled to present the proposed modifications to the public. EPA TMDL staff will be notified of the proposed change at the same time. There will be a 30-day comment period associated with the presentation of the draft TMDL modification, and the public notice procedures as outlined in Guidance Memo No. 04-2010 (Public Participation Procedures for Water Quality Management Planning) will be followed. After the conclusion of the public comment period, follow the procedures outlined in item 2 d through g.

### **III. Additional Considerations**

Because of the additional workload associated with TMDL and regulatory modifications, regional TMDL and permit staff should ensure to the extent possible that the wasteload allocations developed for TMDLs consider expansion plans by permitted facilities in the watershed.

Additionally, wasteload allocations in watersheds without permitted facilities should not be shown as 0. Rather, they should be represented in the TMDL, expressed in terms of “less than” a number equal to or smaller than 1% of the Total Maximum Daily Load.

**Appendix A – EPA letter on TMDL modifications (August 2003)**

**Appendix B – Template for TMDL modification request letter**

**Appendix C – Template for public notice of joint permit and TMDL modification**

## Appendix A – EPA August 2003 Letter Regarding TMDL Modifications



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

Mr. Larry Lawson, Director  
Water Program Coordination  
Virginia Department of Environmental Quality  
629 Main Street  
Richmond, VA 23219

AUG 12 2003

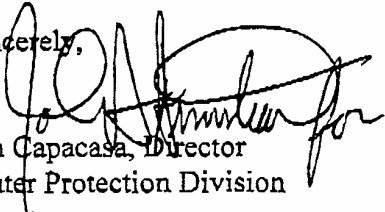
Dear Mr. Lawson:

Staff of the Virginia Department of Environmental Quality (DEQ) recently inquired about modifying a waste load allocation (WLA) on a United States Environmental Protection Agency (EPA) approved total maximum daily load (TMDL) in order to accommodate an expanded discharger. EPA believes that in certain scenarios, on a case by case basis, this type of modification can be made to a TMDL through the Virginia Pollutant Discharge Elimination System (VPDES) program without remodeling the TMDL.

In order to do this, the Commonwealth would need to present its rationale for the modification to the TMDL in the VPDES permit fact sheet to EPA. The fact sheet would need to identify the old and new WLA and TMDL load as well as identifying whether a change in pollutant concentration has been made. The fact sheet must identify other changes to the TMDL and conditions relevant to the TMDL or document that there are no other changes to the TMDL or the watershed. A separate TMDL modification request, including the above information, would need to be sent concurrently to EPA Region III's VA TMDL coordinator. If the modification is made to the TMDL, the permit may be issued containing effluent limits consistent with the modified TMDL.

A copy of the draft permit and proposed TMDL modification would have to be public noticed to insure that the public is cognizant of the TMDL modifications. The TMDL modification request must be provided to EPA at the commencement of the public comment period, providing both the Stakeholders and EPA with ample time and information to provide comments on both the permit and the changes to the TMDL. Lastly, a rationale documenting how these modifications will meet the requirements applicable to a TMDL, e.g. 40 CFR 130.7, must be included in the fact sheet. EPA will evaluate each modification on a case by case basis and respond, via an official approval or disapproval, to the Commonwealth within thirty-days of the final submission of the TMDL modification request. If you have any questions or comments concerning this letter, please feel free to contact Mr. Thomas Henry at (215) 814-5752.

Sincerely,

  
Jon Capacasa, Director  
Water Protection Division



*Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.  
Customer Service Hotline: 1-800-438-2474*

**Appendix B – Sample Letter for TMDL Modification [highlighted text to be replaced as appropriate]**

Month xx, 2005

EPA Region III TMDL Program Manager  
US EPA Region 3 - 3WP12  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

Dear Mr./Ms. xxxx:

This letter is to request approval of modifications to the wasteload allocation (WLA) and total maximum daily load (TMDL) for bacteria developed for xx Creek, xx County, Virginia. EPA Region III approved the pollutant TMDL addressing a [specify use] impairment for xx Creek in Month Year.

The Name of Permitted Facility located in the xx Creek watershed recently requested an expansion of the design flow from xx mgd to yy mgd. DEQ proposes to modify the facility's wasteload allocation to accommodate this expansion at a permitted [pollutant] concentration of xx mg/L.

Updating the [pollutant] TMDL in accordance with this request will not cause a water quality violation because [Insert one or more of the following options]

Option 1: Virginia's Water Quality Standards for [pollutant] require that treated effluent discharged into a receiving stream meet the [pollutant] criteria for the stream.

Option 2: the TMDL included modeling results to confirm that at 5 times the wasteload allocation, the water quality standard would not be violated if permitted dischargers are required to discharge at a [pollutant] concentration of xx.

Option 3: the WLA for xx Creek increases by only approximately xx%, which is insignificant.

VA DEQ therefore proposes to replace tables x.y and a.b in the bacteria TMDL report with the following tables: [Insert appropriate tables from TMDL report]

A public notice containing the above information (see attached) was published in **Name** of Newspaper on **Month Day, Year**. The comment period ended on **Month Day, Year**. **No comments were received /The following comments were received.** In accordance with EPA's August 2003 letter to VA DEQ, VA DEQ hereby requests EPA approval of the proposed modification. If you or your staff have questions on this modification of the **xx Creek** **[pollutant]** TMDL, please contact me at (804) 698-4099.

Sincerely,

TMDL Modeling Coordinator  
Watershed Programs Office

Attachment

cc: **EPA Region III Water Permit Program Manager**  
**RO Permit Manager/Writer, VADEQ**  
**RO TMDL Coordinator, VADEQ**  
**CO TMDL Program Manager, VADEQ**  
**CO Permit Manager, VADEQ**  
File

## **Appendix C – Example Language for Inclusion in Joint Public Notice for TMDL and Permit Modification**

### **DEQ Public Notice**

Citizens may comment on a proposed permit and associated modification of a Total Maximum Daily Load (TMDL) that will allow the release of treated wastewater into a water body in Russell County, Virginia

**PUBLIC COMMENT PERIOD:** First public notice issue date **(to be entered by the newspaper)**. The comment period lasts for 30 days from this date.

**PERMIT NAME:** Virginia Pollutant Discharge Elimination System Permit – Wastewater Owners or operators of facilities (municipal, industrial, or private) that release (discharge) or propose to release wastewater into the streams, rivers or bays of Virginia from a point source must apply for this permit. In general, point sources are fixed sources of pollution such as pipes, ditches or channels. The applicant must submit the application to the Department of Environmental Quality, under the authority of the State Water Control Board.

**PURPOSE OF NOTICE:** To invite the public to comment on the draft permit and TMDL modification.

**NAME, ADDRESS AND PERMIT NUMBER OF APPLICANT:** Town of Honaker; P.O. Box 746, Honaker, VA 24260; VA0026387

**NAME AND ADDRESS OF FACILITY:** Honaker Sewage Treatment Plant; 694 Plant Street, State Route 653, Honaker, VA

**PROJECT DESCRIPTION:** The Town of Honaker has applied for modification of their permit for the Honaker Sewage Treatment Plant in Russell County, Virginia. The applicant proposes to release treated sewage at a rate of 0.40 million gallons per day into a water body. This modification re-rates the treatment facility from 0.20 MGD to 0.40 MGD and also requires modification of the Lewis Creek TMDL to reflect the increased total suspended solids of the discharge. DEQ Sludge from the treatment process will be disposed by: Option A – Land application to farm land in Russell County, Virginia owned by Mason Whited; Option B – Disposal in the BFI Carter's Valley Landfill at Church Hill, Tennessee. The facility proposes to release the treated sewage in the Lewis Creek in Russell County, Virginia, in the Clinch River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: BOD<sub>5</sub> (oxygen demanding substances), total suspended solids, ammonia, and total residual chlorine.

**MODIFICATION OF LEWIS CREEK TMDL:** Total maximum daily load (TMDL) of sediment was developed to address benthic impairments in Lewis Creek, Clinch/Powell watershed. This TMDL was approved by the Environmental Protection Agency on 5/26/04 and can be found at the following website: [http://gisweb.deq.virginia.gov/tmdlapp/tmdl\\_report\\_search.cfm](http://gisweb.deq.virginia.gov/tmdlapp/tmdl_report_search.cfm). The permit modification is based on the Town of Honaker's request to increase the design flow at the sewage treatment plant from 0.20 MGD to 0.40 MGD. Therefore, DEQ proposes to modify the wasteload allocation and TMDL to accommodate this expansion at a permitted total suspended solids concentration of 30 mg/L. The above revisions would result in an insignificant increase in the total allocated sediment loads in the TMDL for Lewis Creek of approximately 0.5%.

**HOW A DECISION IS MADE:** After public comments have been considered and addressed by the



permit or other means, DEQ will make the final decision unless there is a public hearing. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the proposed permit. If there is a public hearing, the State Water Control Board will make the final decision.

**HOW TO COMMENT:** DEQ accepts comments by e-mail, fax or postal mail. All comments must be in writing and be received by DEQ during the comment period. The public also may request a public hearing.

**WRITTEN COMMENTS MUST INCLUDE:**

1. The names, mailing addresses and telephone numbers of the person commenting and of all people represented by the citizen.
2. If a public hearing is requested, the reason for holding a hearing, including associated concerns.
3. A brief, informal statement regarding the extent of the interest of the person commenting, including how the operation of the facility or activity affects the citizen.

**TO REVIEW THE DRAFT PERMIT AND APPLICATION:** The public may review the documents at the DEQ Southwest Regional Office every work day by appointment.

**CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:**

Name: Charles L. Gates

Address: DEQ, Southwest Regional Office, P.O. Box 1688, 355 Deadmore Street, Abingdon, Virginia, 24212 – 1688

Phone: (276) 676-4810; E-mail: [clgates@deq.virginia.gov](mailto:clgates@deq.virginia.gov); Fax: (276) 676-4899